

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	Tyler A. Lowrey	§	Art Unit:	2813
Serial No.:	10/020,757	§		
Filed:	October 30, 2001	§	Examiner:	Laura M. Schillinger
For:	Phase Change Material Memory Device	§	Atty. Docket:	ITO.0513US (P13341)

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**PETITION DECIDED BY THE TECHNOLOGY CENTER DIRECTOR**  
**PURSUANT TO MPEP § 1002.02(c)(2)**  
**FINAL DECISION OF EXAMINER REQUIRING RESTRICTION**

In a second and final action on the merits, the Examiner constructively elected by original presentation the pending original claims, entered some of the new claims sought to be added via amendment and withdrew from consideration the other new claims presented in the amendment. A reconsideration of the restriction requirement was requested. The Examiner considered the request for reconsideration of the restriction requirement but continued to assert that the new claims in question should not be entered. Thus, the Applicant petitions the restriction requirement.

Date of Deposit: July 8, 2003  
I certify that this document and authorization to charge deposit account is being facsimile transmitted to the United States Patent and Trademark Office (Fax No. 703/872-9319) on the date indicated above.  
*Debra Cutrona*  
Debra Cutrona

**Facts Involved**

1. On or about November 13, 2002, the Examiner required restriction of the original claims. For example, the Examiner grouped the claims into two groups. Claims 1-10 formed a first group drawn to a method of making memory. Claims 11-30 formed a second group drawn to a memory device.
2. On or about December 3, 2002, the Applicant elected Group I (claims 1-10) without traverse.
3. On or about March 13, 2003, in response to the first office action the Applicant added new claims 31-50 via amendment. Claims 31-36 depend from claim 1 either directly or indirectly. Claims 37-50 include two independent claims (37 and 44) and claims depending therefrom.
4. On or about March 21, 2003, the Examiner required restriction of some of the newly added claims. For example, the Examiner required restriction of claims 37-50 as being a separate and distinct species. Further, the Examiner constructively elected claims 1-10 and 31-36 by original presentation for prosecution on the merits and withdrew claims 37-50 from consideration.
5. On or about May 5, 2003, the Applicant requested reconsideration of the second restriction requirement.
6. On or about June 16, 2003, the Examiner issued an Advisory Action indicating that the request for reconsideration was considered but the restriction requirement stands because the newly added claims are distinct from the original pending claims.

**Points to be Reviewed****1. Claim 1**

Original claim 1 is a method claim calling for forming a lower electrode, covering the lower electrode with a protective layer, and forming a phase change material over the lower electrode.

**2. Claim 37**

New claim 37 is a method claim calling for forming a protective layer over a lower electrode of a phase change memory.

**3. Claim 44**

New claim 44 is a method claim calling for forming an insulating protective layer over a conductive lower electrode of a phase change memory.

**Requested Action**

The restriction requirement is improper. Thus, it is respectfully requested that the requirement be withdrawn and new claims 37-50 be considered. As such, it is also respectfully requested that prosecution of the application be reinstated from the point where the new claims were introduced.

**Legal Argument**

Claims 37-50 should not be restricted from the present application because they are not independent. Generally, to be independent the claims must not be connected in design, operation or effect under the disclosure of the particular application under consideration. Further, for species to be independent one claim must recite limitations that under the disclosure are found in the first species but not in a second and a second claim recites limitations disclosed only for the second species and not the first. In other words, the different species must be mutually exclusive. See MPEP § 806.04(f). 806.04(b)

In the final office action, the Examiner based the restriction of claims 37-50 on the conclusion that the species of are separate and distinct from the species of claim 1. See Paper No. 6, page 2. Restriction based on distinct species is generally discussed in MPEP §§ 806.04 and 808.01, which address independent inventions. In the final office action, there is no mention that different searches in the prior art would be required. See Paper No. 6, page 2. Thus, when restricted in the final office action, the Examiner indicates that the restriction was based on the species being independent rather than related and distinct. independent

In contrast, in the Advisory Action, the Examiner stated for the first time that the "newly added claims are distinct from those originally pending because it is possible to find entirely different art which would read upon the second sets of claims and would not read upon the first as described in the Examiner's prior office action." See Paper No. 8, page 2. It is respectfully submitted that the basis of rejection in the Advisory Action is directed toward related but distinct inventions as opposed to independent inventions. See MPEP §§ 806.05 and 808.02. However, pursuant to MPEP § 808.02, there must be a

showing of how the related inventions are distinct under § 806.05(c) - § 806.05(i) in addition to giving reasons for insisting upon restriction. The Examiner has failed to establish that the claims are distinct pursuant to MPEP § 806.05(c) - § 806.05(i). As such, the independent status of the claims is addressed below.

Original claim 1 calls for forming a lower electrode, covering the lower electrode with a protective layer, and forming a phase change material over the lower electrode material. New method claim 37 calls for forming a protective layer over a lower electrode of a phase change memory. Thus, both claims call for forming a protective layer and forming a protective layer over a lower electrode. Further, both claims call for a phase change memory.

The two claims are closely related in that they cover substantially the same subject matter in different terminology. Further, under the disclosure, the two claims are not mutually exclusive. Without being mutually exclusive, the restriction of the different species as suggested by the Examiner is in error. Thus, reconsideration of the restriction requirement and withdrawal thereof is respectfully requested for claims 37-43.

New claim 44 calls for forming an insulating protective layer over a conductive lower electrode of a phase change memory. For the reasons stated with respect to claim 37, claim 44 is also not independent. That is, claim 1 and claim 44 both address phase change memory. Thus, restriction is improper.

Because claims 37 and 44 are not directed toward independent species, it is respectfully requested that the restriction requirement be withdrawn. Further, because the Examiner has not made a proper showing of being related but distinct, the restriction requirement should be withdrawn for this additional reason.

#### Fee

A petition brought pursuant to Rule 1.181 does not have a fee expressly provided for in Rule 1.17. The Commissioner is authorized to charge and/or credit any additional fees to Deposit Account No. 20-1504 (ITO.0513US).

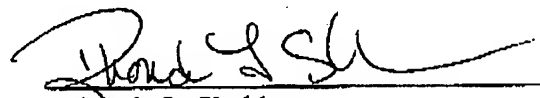
**Statement that Petition is Timely Filed**

The complained about action took place on June 16, 2003, thus this matter has been addressed within 2 months of that date.

Respectfully submitted,

Date: July 8, 2003



  
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**MESSAGE:**

Attorney Docket No.: ITO.0513US (P13341)

RLS/dlc TECHNOLOGY CENTER 2800

Applicant: TYLER A. LOWREY  
Serial No.: 10/020,757  
Filing Date: October 30, 2001  
Title: PHASE CHANGE MATERIAL MEMORY DEVICE

1. Petition Decided by the Technology Center Director Pursuant to MPEP § 1002.02(c)(2) Final Decision of Examiner Requiring Restriction; and
2. Fax Coversheet.

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